

What is Claimed is:

1. A pump driving method drives a motor (3) based upon a command value using discharge pressure - discharge flow characteristic and carries out feedback of the discharge pressure, and drives a pump (4) using the motor (3), the method is 5 characterized in that the method changes discharge pressure – discharge flow characteristic in correspondence with a power voltage.

2. A pump driving method as set forth in claim 1, wherein the method holds discharge pressure - discharge flow characteristics corresponding to a plurality of 10 power voltage, respectively, and selects a corresponding discharge pressure - discharge flow characteristic in correspondence with a detection value in power voltage.

3. A pump driving method as set forth in claim 1, wherein the method defines a predetermined pressure, flowing amount, and horse power as characteristic 15 values for a predetermined power voltage, and changes a discharge pressure - discharge flow characteristic in correspondence with a detection value in power voltage.

4. A pump driving method drives a motor (3) based upon a command value using discharge pressure - discharge flow characteristic and carries out feedback 20 of the discharge pressure, and drives a pump (4) using the motor (3), the method is characterized in that the method judges whether or not a DC voltage of an inverter (2) for supplying a driving voltage to a motor (3) is a ideal DC voltage value of an alternate current power voltage, changes a discharge pressure - discharge flow characteristic for the DC voltage when it is judged that the DC voltage is the ideal DC voltage value of 25 the alternate current power voltage, and maintains the changed discharge pressure - discharge flow characteristic when it is judged that the DC voltage is not the ideal DC voltage value of the alternate current power voltage and when the just prior DC voltage is the ideal DC voltage value of the alternate current power voltage.

- 30 5. A pump driving method as set forth in claim 4, wherein the method

maintains a power voltage value instead the maintaining of the discharge pressure – discharge flow characteristic.

6. A pump driving apparatus drives a motor (3) based upon a command
5 value using discharge pressure - discharge flow characteristic and carries out feedback
of the discharge pressure, and drives a pump (4) using the motor (3), the apparatus
comprises characteristic changing means for changing discharge pressure - discharge
flow characteristic in correspondence with a power voltage.

10 7. A pump driving apparatus as set forth in claim 5, wherein the
characteristic changing means holds discharge pressure - discharge flow characteristics
corresponding to a plurality of power voltage, respectively, and selects a
corresponding discharge pressure - discharge flow characteristic in correspondence with
a detection value in power voltage.

15 8. A pump driving apparatus as set forth in claim 5, wherein the
characteristic changing means defines a predetermined pressure, flowing amount, and
horse power as characteristic values for a predetermined power voltage, and changes a
discharge pressure - discharge flow characteristic in correspondence with a detection
20 value in power voltage.

9. A pump driving apparatus drives a motor (3) based upon a command
value using discharge pressure - discharge flow characteristic and carries out feedback
of the discharge pressure, and drives a pump (4) using the motor (3), the apparatus
25 comprises judgment means for judging whether or not a DC voltage of an inverter (2)
for supplying a driving voltage to a motor (3) is a ideal DC voltage value of an alternate
current power voltage, for changing a discharge pressure - discharge flow characteristic
for the DC voltage when it is judged that the DC voltage is the ideal DC voltage value
of the alternate current power voltage, and for maintaining the changed discharge
30 pressure - discharge flow characteristic when it is judged that the DC voltage is not the

ideal DC voltage value of the alternate current power voltage and when the just prior DC voltage is the ideal DC voltage value of the alternate current power voltage.

10. A pump driving apparatus as set forth in claim 9, wherein the
5 judgment means maintains a power voltage value instead the maintaining of the
discharge pressure - discharge flow characteristic.